REMARKS

Claims 1-20 are pending.

In Paragraph No. 2 of the Action, claims 1-20 are provisionally rejected for obviousness-type double patenting as allegedly being unpatentable over claims 1-20 of copending Application No. 10/806,421.

Applicant submits herewith a Terminal Disclaimer to obviate the rejection based on copending Application No. 10/806,421.

Accordingly, reconsideration and withdrawal of the provisional obviousness-type double patenting rejection are respectfully requested.

In Paragraph No. 4 of the Action, claims 1-4 and 8-20 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Komori et al (U.S. Patent 6,602,564 B1).

Applicant submits that this rejection should be withdrawn because Komori et al '564 does not disclose or render obvious the gas barrier laminate film of the present invention.

As recited in independent claim 1, the present invention relates to a method for producing a gas barrier laminate film. The method includes the step of applying a mixture containing at least one alkoxysilane, an acid catalyst and a hydrophilic resin to a polymer base film to form a coating layer. As seen in claim 1, the acid catalyst is contained in the mixture in an amount of from 0.3 to 5.0 molar equivalents with respect to 1 molar equivalent of the alkoxysilane.

The Examiner states that Komori et al in Example 1 disclose a barrier film comprising a 12 micron thick polymeric substrate (1) coated with a 0.3 micron (i.e., 300 nanometers) thick overcoating layer (4). Per the Examiner, the overcoating (4) is formed using a mixture of

solution (1) and solution (2) at a mixing ratio 60 wt%/40 wt%. The Examiner states that the solution (1) is prepared by hydrolyzing tetraalkoxy silane with hydrochloric acid in water and the solution (2) is of a polyvinyl alcohol.

The Examiner concedes that Komori et al do not disclose the claimed molar equivalents of acid with respect to alkoxy silane, the claimed silicon density, or the claimed display devices recited in claims 18-20.

However, the Examiner reasons, given the teachings of Komori et al, a person of ordinary skill in the art would have found it obvious to optimize the amount of acid catalyst required for hydrolysis of the alkoxy silane and the amount of polyvinyl alcohol depending on the desired improvement of the gas barrier properties of the film.

Applicant strongly disagrees that a person of ordinary skill in the art would have found it obvious to arrive at the present invention from Komori et al's disclosure. The method of the present invention is patentable over Komori et al.

In Example 1 of Komori et al, 10.4g of tetraethoxysilane and 89.6g of 0.1N HCl were used. Since the molecular weight of tetraethoxysilane is 208.3 and the specific gravity of hydrochloric acid is 1.2 g/cm^3, the molar equivalents of hydrochloric acid with respect to 1 molar equivalent of the alkoxysilane are calculated to be 0.0374 (see below):

$$\frac{(89.6\,\text{g} / 1.2\,\text{g/cm}^3) \times 1\text{x}10^{-3}\ \text{liters/cm}^3 \times 0.1\text{N}}{(10.4\,\text{g} / 208.3\,\text{g/mol}) \times 4}$$

It is clear that the value of 0.0374 is out of the claimed range (i.e., 0.3 to 5.0). It is far lower than the lower limit. Thus, the working example of Komori et al does not fall within the scope of claim 1 of the present application.

The molar ratio of Komori (0.0374) is close to the conventional range. See page 3, lines 9-26 of the present specification. The conventional range of the molar ratio is 0.0001 to 0.01, which cannot attain or provide a sufficient gas barrier property. This fact is shown in Tables 1 and 2 at pages 43-44 of the present specification. See also the discussion at page 45 of the specification. Comparative Examples 1 and 2 with a molar ratio of 0.1 and Comparative Example 3 with a molar ratio of 0.01 are much inferior to Examples 1-11 with a molar ratio of 0.3 to 5.0 with respect to their gas barrier properties.

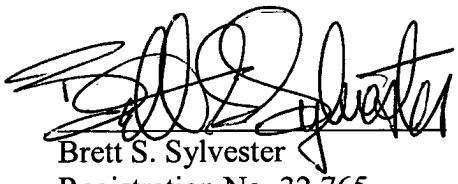
Komori et al is silent with respect to the molar equivalent ratio and therefore no one skilled in the art would be motivated to change the molar ratio of Komori et al. Applicant believes that no one skilled in the art would have predicted that the molar ratio claimed in the present application would result in excellent gas barrier properties, before the claimed invention was made. Komori et al does not disclose, teach or suggest the method of the present invention.

In view of the above, reconsideration and withdrawal of the §103(a) rejection based on Komori et al '564 are respectfully requested.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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